Other: Pakalakala monotypic

## breeding visitor, indigenous

The Gray-backed Tern breeds in small, scattered colonies throughout the tropical Pacific Ocean, from the Tuamotu, Samoan, and Mariana Is to Johnston and Wake atolls (Amerson and Shelton 1976, Clapp and Hatch 1986, Rauzon et al. 2008) and the Hawaiian Islands (King 1967, Harrison 1983, Mostello et al. 2000). Northern populations (at least) are migratory, e.g., occurring in the Hawaiian Island region primarily during the breeding season in Feb-Oct. They were combined along with other terns in the genus *Sterna* (as *lunata*) until tern genera were split by the AOU (2006). Nesting sites are usually peripheral to those of the much more numerous <u>Sooty Tern</u>, although at certain colonies (e.g., Gardner Pinnacles; Clapp 1972) Gray-backed Terns predominate. When not at breeding colonies Gray-backed Terns disperse widely throughout the tropical and subtropical Pacific, as far E as Clipperton Atoll where there is a record of two roosting individuals. See Mostello et al. (2000) for more information on the natural history and biology of this species in the Pacific.

Grav-backed Terns in the region breed almost exclusively on the Northwestern Hawaiian Islands, with a total population size of about 43,000 pairs (Table). The largest breeding colonies are found on *Lisianski* (estimated 17,500 pairs), followed by *Nihoa* (10,000), Laysan (7,500), Necker (4,000), Gardner Pinnacles (2,000 pairs), and Midway (1,000), with smaller colonies (25-700 pairs) on *Pearl and Hermes*, *French Frigate*, *Kure* (Table). Populations on Midway were eradicated by the introduction of black rats in 1945 (Fisher and Baldwin 1946) increased (to ~1000 pairs) in the late 2000s, similar to population sizes in 1938 (Hadden 1941), after the elimination of rats there by 1997. Colonies on Lisianski and Laysan were reduced during years of de-vegetation by rabbits, around the turn of the 19th century, but appear to have recovered to historical levels at both colonies (Ely and Clapp 1973, Clapp and Wirtz 1975). Populations on French Frigate may have increased during the 1980s, but this and other discrepancies between historical and recent estimates (see Appendix 2 in Mostello et al. 2000) may relate to inter-annual variation in breeding timing and effort and the difficulty of estimating numbers within dense colonies of this species (Fefer et al. 1987). Information on the history of the species and data on breeding phenology for each Northwestern Island, compiled as part of the POBSP, can be found in the Atoll Research Bulletins for each breeding locality (see Seabird Page).

In the *Southeastern Hawaiian Islands*, small breeding colonies of Gray-backed Terns occur only on Kaula Rock off *Ni'ihau* (Caum 1936), where an estimated 550 pairs breed, and Mokumanu Islet off *O'ahu*, where 10-30 pairs breeding annually. A count of 4,000 individuals at Kaula Rock in Jun 1980 may or may not have included actively breeding birds but suggests that this colony could be much larger, at least in certain seasons. One observed on Lehua Islet off Ni'ihau 7 Jul 2002 may indicate prospective breeding at this seabird colony, as well (see also Richardson and Bowles 1964). At Mokumanu up to 30 individuals and 4-5 nests were reported during trips to the island in the 1940s (*E* 4:30, 8:53; Richardson and Fisher 1950), and the persistence of this colony

through the 2000s has subsequently been confirmed by occasional trips (e.g. HDFW 2006) and observations from Mokapu Peninsula (e.g., *E* 23:22, 26:109, 29:49, 39:25, 41:75). Several hundred birds seen flying by the colony on 25 May 1985 is the only count above 50, and it may have included non-breeding individuals. Richardson and Fisher (1950) also noted non-breeding birds at the seabird colony at Manana islet. A tern photographed in a breeding colony on Eastern I, Midway Atoll 5 Jun 2008 (HRBP 5496-5497 published *NAB* 62:632) shows characters suggesting a hybrid of a Sooty Tern with either Bridled Tern (as suggested somewhat by the bird's appearance) or Gray-backed Tern (more likely in this mixed colony) but its identification remains unconfirmed (it may also be just an aberrant Sooty Tern).

Gray-backed Terns are occasionally observed in Apr-Aug from O'ahu, primarily in the vicinity of the colony but also off the N coast (1 found stranded at Makaha, O'ahu 26 May 1998, died the next day; BPBM 184163). They have also been seen from *Kaua'i* during these months (e.g., *E* 8:15, 26:29). Specimens collected by the Knudsens in the late 1800s, reportedly on Kaua'i (Stejneger 1889), may have come from Ni'ihau or offshore islets as there are no other records of this species on Kaua'i. A weak first-fall tern sitting in Kanaha Pond, Maui 27 Sep 1993 was only tentatively identified as a Graybacked Tern, and we consider this record unsubstantiated, as with a report of a storm-driven bird at Hawaii Volcanoes NP in 1959 (Dunmire 1961). Otherwise, there are no records of this species observed on or from any of the other Southeastern Islands. *At sea*, Gray-backed Terns are also only seen occasionally and usually in the vicinity of breeding colonies. Rowlett (2002) observed them on only 11 days during 25 Aug-16 Sep during daily censuses in Aug-Nov 2002; most of these were in the vicinity of Nihoa. King (1970) and Spear et al. (1999) did not record any in their survey areas primarily to the S and E of the Southeastern Islands.

The only records from the Hawaiian region between mid-Nov and late Jan involved undocumented reports from Laysan 22 Dec 1913 (Bailey 1956; Ely and Clapp 1973), 28 Dec 2000 (*E* 61:81), and 19 Dec 2003 (*E* 64:65), and three reported on the Waimea, Kaua'i Christmas Count 18 Dec 2003 (*E* 64:63). We consider these unsubstantiated, although it is possible that some birds may visit larger colonies (such as Laysan) during the non-breeding season or return early to breed in certain years.

## Acronyms and Abbreviations

## Literature cited

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